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INFORMATION DIS

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STATEMENT BY A

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Sheet 9

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Application Number	10/688,797	1
Filing Date	October 17, 2003	
First Named Inventor	Singh, et al.	
Group Art Unit	160	
Examiner Name	Unknown	
Attorney Docket Number	AMAT/7729/TCG/EPI/LE	
Submission Date	February 10, 2004	J

			U.S. PATENT	DOCUMENTS	
Examiner Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
h	NO.	Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
11	A1	US-6632279B1	10/14/2003	Ritala, et al.	
	A2	US-6630413B2	10/07/2003	Todd	
	A3	US-6559520B2	05/06/2003	Matsuki, et al.	
1	A4	US-6544900B2	04/08/2003	Raaijmakers, et al.	
	A5	US-6534395B2	03/18/2003	Werkhoven, et al.	
	A6	US-6511539B1	01/28/2003	Raaijmakers	
	A7	US-6492283B2	12/10/2002	Raaijmakers, et al.	
	A8	US-6468924B2	10/22/2002	Lee, et al.	
	A9	US-6458718B1	10/01/2002	Todd	
	A10	US-6410463B1	06/25/2002	Matsuki	
	A11	US-6399491B2	06/04/2002	Jeon, et al.	
	A12	US-6391803B1	05/21/2002	Kim, et al.	
	A13	US-6391785B1	05/21/2002	Satta, et al.	
\neg	A14	US-6383955B1	05/07/2002	Matsuki, et al.	
	A15	US-6358829B2	03/19/2002	Yoon, et al.	
	A16	US-6352945B1	03/05/2002	Matsuki, et al.	
Tag	A17	US-6348420B1	02/19/2002	Raaijmakers, et al.	
TAP	A18	US-6342277B1	01/29/2002	Sherman	

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Examiner Cite No.1		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	T6		
	Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear				
	B1 ·	WO 02/097864 A2	12/05/2002	WIPO				
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1 //.	ВЗ .	WO 02/065525 A1	08/22/2002	WIPO				
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VO	85 .	WO 02/065516 A2	08/22/2002	WIPO				
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 9

Application Number	10/688,797	1
Filing Date	October 17, 2003	
First Named Inventor	Singh, et al.	
Group Art Unit	160	
Examiner Name	Unknown	
Attorney Docket Number	AMAT/7729/TCG/EPI/LE	
Submission Date	February 10, 2004	J

	U.S. PATENT DOCUMENTS						
Examiner Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where			
nitiais N	NO.	Number-Kind Code ^{2 (I known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear		
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7	A2	US-6287965B1	09/11/2001	Kang, et al.			
	А3	US-6284686B1	09/04/2001	Marlor			
	A4	US-6284646B1	09/04/2001	Leem			
	A5	US-6270572B1	08/07/2001	Kim, et al.			
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	A7	US-6207487B1	03/27/2001	Kim, et al.			
	A8	US-6200893B1	03/13/2001	Sneh			
	A9	US-6144060	11/07/2000	Park, et al.			
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	A11	US-6027705	02/22/2000	Kitsuno, et al.			
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İ	A17	US-5674304	10/07/1997	Fukada, et al.			
	A18	US-5527733	06/18/1996	Nishizawa, et al.	·		
	A19	US-5512126	05/28/1996	Okamura, et al.			

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	Number-Kind Code ^{2 (I known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear		
В1	WO 02/065508 A2	08/22/2002	WIPO			
B2 ·	WO 02/064853 A2	08/22/2002	WIPO			
B3 '	WO 01/66832 A2	09/13/2001	WIPO			
B4 .	WO 01/41544 A2	06/14/2001	WIPO			
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	No. 1 B1 * B2 * B3 * B4 .	Cite No.1 Foreign Patent Document Number-Kind Code ^{2 (I known)} B1 WO 02/065508 A2 B2 WO 02/064853 A2 B3 WO 01/66832 A2 B4 WO 01/41544 A2	Cite No.¹ Foreign Patent Document Publication Date MM-DD-YYYY B1 * WO 02/065508 A2 08/22/2002 B2 ' WO 02/064853 A2 08/22/2002 B3 ' WO 01/66832 A2 09/13/2001 B4 . WO 01/41544 A2 06/14/2001	Cite No.¹ Foreign Patent Document Publication Date MM-DD-YYYY Name of Patentee or Applicant of Cited Document B1 · WO 02/065508 A2 08/22/2002 WIPO B2 · WO 02/064853 A2 08/22/2002 WIPO B3 ¹ WO 01/66832 A2 09/13/2001 WIPO B4 . WO 01/41544 A2 06/14/2001 WIPO	Cite No.¹ Foreign Patent Document Publication Date MM-DD-YYYY Name of Patentee or Applicant of Cited Document Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear B1 · WO 02/065508 A2 08/22/2002 WIPO B2 · WO 02/064853 A2 08/22/2002 WIPO B3 ¹ WO 01/66832 A2 09/13/2001 WIPO B4 . WO 01/41544 A2 06/14/2001 WIPO	

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Sheet 3 of

Application Number	10/688,797	
Filing Date	October 17, 2003	
First Named Inventor	Singh, et al.	
Group Art Unit	160	
Examiner Name	Unknown	
Attorney Docket Number	AMAT/7729/TCG/EPI/LE	
Submission Date	February 10, 2004	フ

	U.S. PATENT DOCUMENTS						
Initials* No.1	Document Number Number-Kind Code ^{2 (* krown)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
	<u> </u>				Figures Appear		
V	A1	US-5480818	01/02/1996	Matsumoto, et al.			
N	A2	US-5503875	04/02/1996	lmai, et al.			
1	A3	US-5469806	11/28/1995	Mochizuki, et al.			
	A4	US-5374570	12/20/1994	Nasu, et al.			
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	A8	US-20030205729A1	11/06/2003	Basceri, et al.			
	A9	US-20030197831A1	10/23/2003	Kim			
	A10	US-20030194853A1	10/16/2003	Jeon			
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Ī	A14	US-20030160277A1	08/28/2003	Bhattacharyya			
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1	A19	US-20030089942A1	05/15/2003	Bhattacharyya			

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Examiner		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	T ⁶
Initials*	No.'	Number-Kind Code ^{2 (8 known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	
	B1 .	WO 01/29893 A1	04/26/2001	WIPO		
11	B2 ·	WO 01/17692 A1	03/15/2001	WIPO		
	B3 '	WO 01/15220 A1	03/01/2001	WIPO		
	B4 .	WO 00/54320 A1	09/14/2000	WIPO		
\wedge	B5 ,	WO 00/16377 A2.	03/23/2000	WIPO	,	

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PTO/SB/08a (08-03)

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INFORMATION STATEMENT BY

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Sheet 4 9 of

	See	\
Application Number	10/688,797	•
Filing Date	October 17, 2003	
First Named Inventor	Singh, et al.	
Group Art Unit	160	
Examiner Name	Unknown	
Attorney Docket Number	AMAT/7729/TCG/EPI/LE	
Submission Date	February 10, 2004	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (J krown)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant	
- \	-	US-20030089308A1	ļ		Figures Appear	
	A1		05/15/2003	Raaijmakers		
17	A2	US-20030082300A1	05/01/2003	Todd, et al.		
/′	А3	US-20030072975A1	04/17/2003	Shero, et al.		
	A4	US-20030060057A1	03/27/2003	Raaijmakers, et al.	•	
	A5	US-20030049942A1	03/13/2003	Haukka, et al.		
	A6	US-20030036268A1	02/20/2003	Brabant, et al.		
	A7	US-20030032281A1	02/13/2003	Werkhoven, et al.		
1	A8	US-20030022528A1	01/30/2003	Todd		
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	A11	US-20020197881A1	12/26/2002	Ramdani, et al.		
1	A12	US-20020173130A1	11/21/2002	Pomerede, et al.		
1	A13	US-20020173113A1	11/21/2002	Todd		
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į	A16	US-20020016084A1	02/07/2002	Todd		
\.	A17	US-20020155722A1	10/24/2002	Satta, et al.		
7	A18	US-20020127841A1	09/12/2002	Horita, et al.		

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Examiner Cite No.1		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	T ⁶
	Number-Kind Code ^{2 (I known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear		
	B1 .	WO 98/20524 A1	05/14/1998	WIPO		
	B2 .	JP2001189312	05/02/2001	JAPANESE		
	В3 •	JP2001111000	12/26/2002	JAPANESE		
	В4 ·	JP63062313 (Abstract Only)	03/18/1988	JAPANESE		
	B5	JP62171999	07/28/1987	JAPANESE		

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PTO/S8/08a (08-03)

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INFORMATION DISCLOSURE STATEMENT BY APPLICATION

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Sheet 5 of 9

ersons are required to respond to a collec-	tion or miorination unless it displays a valid OMB	countri infiliates
Application Number	10/688,797	
Filing Date	October 17, 2003	
First Named Inventor	Singh, et al.	
Group Art Unit	160	
Examiner Name	Unknown	
Attorney Docket Number	AMAT/7729/TCG/EPI/LE	
Submission Date	February 10, 2004	

			U.S. PATENT	DOCUMENTS	
Examiner Initials*,	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
1		Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
	A1	US-20020098627A1	07/25/2002	Pomarede, et al.	
(1)	A2	US-20020093042A1	07/18/2002	Oh, et al.	
	А3	US-20020076837A1	06/20/2002	Hujanen, et al.	
	A4	US-20020074588A1	06/20/2002	Lee	
	A5	US-20020052077A1	05/02/2002	Tee, et al.	
	A6	US-20020047151A1	04/25/2002	Kim, et al.	
	A7	US-20020031618A1	03/14/2002	Sherman	
	A8	US-20020000598A1	01/03/2002	Kang, et al.	
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	A14	US-20010024871A1	09/27/2001	Yagi	
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,	A16	US-20010020712A1	09/13/2001	Raaijmakers, et al.	
	A17	US-20010000866A1	05/10/2001	Sneh, et al.	
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		FOR	EIGN PATENT	DOCUMENTS	•	
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	Te
Initials*	No.'	Number-Kind Code ^{2 (It known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	
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И	B2 -	JP07300649 A	11/14/1995	JAPANESE		
	B3 -	JP6-196809	07/15/1994	JAPANESE		
1	B4 -	JP5-251339	09/26/1993	JAPANESE		
	B5	JP5102189	04/23/1993	JAPANESE		

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INFORMATION DECLOSORE

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STATEMENT BY APPLICAL

Sheet 6 of 9

ersons are required to respond to a collection of information unless it displays a valid CMB conflict humber					
Application Number	10/688,797	$\overline{}$			
Filing Date	October 17, 2003				
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			U.S. PATENT	DOCUMENTS	•
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		Number-Kind Code ^{2 (* known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
	A1	US-		 -	
	A2	US-			
	A3	US-			
	A4	US-			
	A5	US-			
	A6	US-			
	A7	US-			
	A8	US-			
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FOREIGN PATENT DOCUMENTS						
Cite	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines,	T⁴	
No.	Number-Kind Code ^{2 (8 known)}			Where Relevant Passages or Relevant Figures Appear		
B1 ,	JP5047665	02/26/1993	JAPANESE			
B2 ,	JP3286522	12/17/1991	JAPANESE			
вз .	JP2172895	07/04/1990	JAPANESE			
B4	JP1270593	10/27/1989	JAPANESE			
B5	JP1-143221	06/05/1989	JAPANESE			
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Date Considered

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Examiner

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Under the

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Sheet 7 of 9

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
Attorney Docket Number	AMAT/7729/TCG/EPI/LE
Submission Date	February 10, 2004

			U.S. PATENT	DOCUMENTS	
Examiner Cite Initials* No.1		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
initials	No.	Number-Kind Code ^{2 (I known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
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l	INFORMATION DESCLOSUSE STATEMENT BY AFRICANT				Group Art Unit	160	
					Examiner Name	Unknown	
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厂	Sheet	8	of	9	Submission Date	February 10, 2004	フ

	T	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
X	C1	Argarwal, et al. "Challenges in Integrating the High-K Gate Dielectric Film to the Conventional CMOS Process Flow," Mat. Sec. Soc. Sump. Proc. Vol. 670 (2001)	
	C2	Bedair, "Atomic Layer Epitaxy Deposition Processes," J. Vac. Sci. Technol. B., Vol. 12, No. 1, Jan/Feb 1994	
	C3	Choi, et al. "The Effect of Annealing on Resistivity of Low Pressure Chemical Vapor Deposited Titanium Diboride," J. Appl. Phys. 69(11), 1 June 1991	
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	C6	Elers, et al. "NbCl ₅ as a Precursor in Atomic Layer Epitaxy," Applied Surface Science 82/83 (1994) 468-474	
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	C9	Jeong, et al. "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001	
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	C11	Imai, et al. Jpn. J. Appl. Phys., 30 (1991) 3646.	
Examiner	1	Date Considered 11/2/12	

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Substitute for form 1449B/PTO	Application Number	10/688,797
FEB 1 2 2004	Filing Date	October 17, 2003
INFORMATION DISCLOSURE STATEMENT BY APPLICATION	First Named Inventor	Singh, et al.
STATEMENT BY APPLICANT	Group Art Unit	160
	Examiner Name	Unknown
(Use as many sheets as necessary)	Attorney Docket Number	AMAT/7729/TCG/EPI/LE

Submission Date

February 10, 2004

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of 9

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	C12	Lee, et al. "Cyclic Technique for the Enhancement of Highly Oriented Diamond Film Growth," Thin Solid Films 303 (1997) 264-269	
,	C13	Lubben, et al. "Mechanisms and kinetics of Si atomic-layer epitaxy on Si(001)2X1 from Si ₂ H ₆ ," J. Vac. Sci. Technol. A 9 (6), Nov/Dec 1991, 3003-3011.	
	C14	Min, et al. "Metal-organic Atomic-layer Deposition of Titanium-silicon-nitride Films," Applied Physics Letters, Vol. 75, No. 11 (11 Sep 1999)	
	C15	Min, et al. "Chemical Vapor Deposition of Ti-Si-N Films with Alternating Source Supply," Mat. Res. Soc. Symp. Proc. Vol. 564 (1999)	
	C16	Paranjpe, et al. "Atomic Layer Deposition of AlO _x for Thin Film Head Gap Applications," J. Electrochem. Soc., Vol. 148, No. 9, Sep. 2001	
C17 Ritala, et al. "Atomic Layer Deposition of Oxide Thin Films with Metal Alkoxides as Oxygen Sources," Science Vol. 288 14 Apr 2000			
N.	C18	Suda, <i>et al.</i> "Adsorption and thermal dissociation of disilane (Si₂H ₆) on Si(100)2X1," J. Vac. Sci. Technol. A8 (1), Jan/Feb 1990, 61-67.	
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	Filing Date	October 17, 2003
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A DISCLOSURE STATEMENT BY	Group Art Unit	160
APPLICANT	Examiner Name	Unknown
MAR 2 9 2004 CUse as many sheets as necessary)	Attorney Docket Number	AMAT/7729/TCG/EPI/LE
Sheet 1 of 1	Submission Date	March 25, 2004

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	C1	IMAI, et al., "A Novel Atomic Layer Epitaxy Method of Silicon," Jpn. J. Appl. Phys. Vol. 30, No. 12B, December, 1991, pp. 3646-3651	
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Substitute for form 1449A/PTO	Application Number	10/688,797
TE .	Filing Date	October 17, 2003
P E PPLEMENTAL INFORMATION	First Named Inventor	Singh, et al.
DISCLOSURE	Group Art Unit	160
10 Spriement Stratelown	Examiner Name	Unknown
(Use as many sheets as necessary)	Attorney Docket Number	AMAT/7729/TCG/EPI/RKK
Sheet 1 of 1	Submission Date	June 22, 2004

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f krown)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
A	A1	US-4,690,830	09/01/1987	Dickson, et al.		
	A2	US-4,830,890	05/16/1989	Kanai		
	A3	US-5,604,151	02/18/1997	Goela, et al.		
<i>- </i>						

FOREIGN PATENT DOCUMENTS							
Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	T ⁶		
No.	Country Code ³ -Number ⁴ -Kind Code ³ (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear			
B1	EP 0 296 702	04/18/1988	Dow Coming Corporation				
B2	JP 63234513	09/29/1988	Canon, Inc.				
В3	JP 01083510 (Abstract Only)	03/29/1989	IBIDEN, CO. LTD.				
							
	No.1 B1 B2	Cite No. Foreign Patent Document	Cite No.¹ Foreign Patent Document Publication Date MM-DD-YYYY B1 EP 0 296 702 04/18/1988 B2 JP 63234513 09/29/1988	Cite No. Toreign Patent Document No. No. Name of Patentee or Applicant of Cited Document B1 EP 0 296 702 B2 JP 63234513 Publication Date MM-DD-YYYY Publication Date MM-DD-YYYY Publication Date MM-DD-YYYY Applicant of Cited Document O9/29/1988 Dow Coming Corporation O9/29/1988 Canon, Inc.	Cite No. Toreign Patent Document No.		

		<u> </u>	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name o item (book,	of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
	C1	Moore, Darre chemical vap XP00227626	en L., et al., "Reaction of hydrogen peroxide with organosilanes under our deposition conditions", Dalton (2000), (16), 2673-2677, 2000, 5	
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Examiner	M		Date Considered 11/21/08	

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